

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/093905 A1

(51) International Patent Classification⁷: **H01Q 15/08**,
19/06, 15/23, 1/28, 25/00

(21) International Application Number:
PCT/GB2005/001224

(22) International Filing Date: 29 March 2005 (29.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0406814.4 26 March 2004 (26.03.2004) GB

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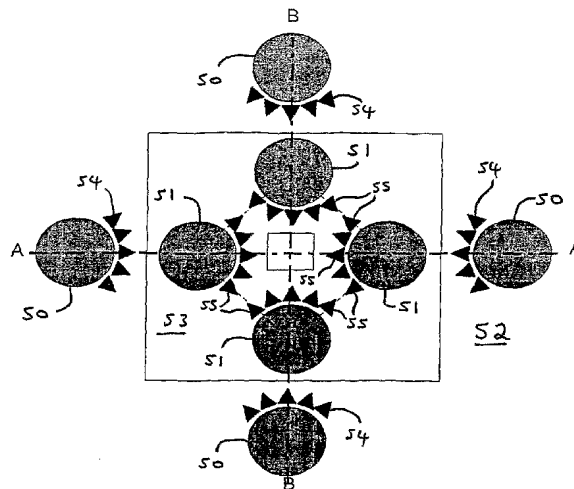
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: AN ANTENNA WITH PARTIALLY SPHERICAL DIELECTRIC LENSES



(57) Abstract: An antenna is provided comprising a first group of part-spherical dielectric lenses supported on a first portion of a conducting ground plane arranged to reflect signals emerging from the lens, each of the lenses having a number of associated switchably selectable antenna feed elements arranged around the periphery of at least one sector of the lens for injecting signals into and/or receiving signals propagated by the lens, wherein each lens and the associated feed elements of the first group has a different orientation and may be operated to provide coverage in respect of a different region. The antenna also comprises a second group of one or more spherical or part-spherical dielectric lenses and associated switchably selectable antenna feed elements, oriented and operable to provide coverage to a region other than that covered by lenses of the first group. The first portion of the ground plane may be substantially annular and arranged to surround a well-like region of the antenna in which the second group of one or more lenses may be accommodated.

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GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

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